

MESA List - 2008 Changes - NHESP Recommendations
Massachusetts List of Endangered, Threatened & Special Concern Species

March 11, 2008

Natural Heritage & Endangered Species Program
Massachusetts Division of Fisheries and Wildlife

Action	Taxonomic Group	Scientific Name & Common Name	Current Rank	New Rank	Brief Summary of Justification
D	Moth	<i>Apamea mixta</i> Coastal Plain Apamea Moth	SC	-	This species has not been documented in Massachusetts in over 32 years, despite extensive, targeted searches at the historic site and in other appropriate habitat.
C	Dragonfly	<i>Stylurus scudderii</i> Zebra Clubtail	E	SC	Recent increases in observer efforts have documented the presence of 24 occurrences of this species in 11 watersheds in central and western Massachusetts. There are no known threats specific to the species, and the larvae have been collected in several degraded sites.
D	Salamander	<i>Hemidactylium scutatum</i> Four-toed Salamander	SC	-	Since this species was first listed as a Species of Special Concern, there has been a substantial increase in the number of records accepted by NHESP annually. Currently, there are 504 documented, accepted observations of Four-toed Salamanders in the NHESP database, representing 240 populations or occurrences in 148 towns. Suitable habitat appears to be quite widespread in Massachusetts, and increased survey efforts targeted at this cryptic species have documented its distribution throughout most of the state.
C	Vascular Plant	<i>Carex baileyi</i> Bailey's Sedge	E	T	Six occurrences (populations) are currently known in Massachusetts; three of these populations contain two or more separate stations. Altogether, there are twelve known "stations" comprising at least 500 individuals. There is much additional unsearched, appropriate habitat in the vicinity of the existing populations. The number of occurrences has been increasing recently due to additional survey effort in the habitats and region of the state in which <i>C. baileyi</i> occurs.
D	Vascular Plant	<i>Desmodium humifusum</i> Spreading Tick Trefoil	T	-	This taxon has been revealed to be hybrid-derived and always occurring with its parent taxa, <i>D. paniculatum</i> and <i>D. rotundifolium</i> , both common in the state. To restrict MESA eligibility to newly-evolved taxa of hybrid origin (nothospecies, rather than unstable hybrids), NHESP listing criteria state that "a plant taxon of hybrid origin may be listed if it has been shown to be both: (1) capable of sexual reproduction; and (2) able to maintain discrete populations separate from the parent taxa." Clearly, <i>D. humifusum</i> no longer meets the second criterion for MESA eligibility and therefore should be removed from the MESA list.
D	Vascular Plant	<i>Potamogeton diversifolius</i> Variable-leaved Pondweed	E	-	<i>P. diversifolius</i> was thought to have been confirmed in Massachusetts based on a 2002 collection at Lake Rohunta. However, molecular analysis of additional specimens collected in 2006 has revealed that the plants were not <i>P. diversifolius</i> , but rather a hybrid of two common pondweeds. Since <i>P. diversifolius</i> is not now documented from the state, it should be removed from the MESA list.
D	Vascular Plant	<i>Pycnanthemum clinopodioides</i> Basil Mountain Mint	E	-	Independent cytological, morphological and molecular studies of this taxon strongly suggest that the taxon is an unstable, recently derived hybrid. Recent molecular study of Massachusetts plants confirm this in the taxon in Massachusetts. To restrict MESA eligibility to newly-evolved taxa of hybrid origin (nothospecies, rather than unstable hybrids), NHESP listing criteria state that "a plant taxon of hybrid origin may be listed if it has been shown to be both: (1) capable of sexual reproduction; and (2) able to maintain discrete populations separate from the parent taxa." Clearly, <i>P. clinopodioides</i> no longer meets either criterion for MESA eligibility and therefore should be removed from the MESA list.

C	Vascular Plant	<i>Ranunculus pensylvanicus</i> Bristly Buttercup	T	SC	Nineteen occurrences are currently known to be extant in MA. In contrast, when the species was listed as Threatened in 1989, only three current populations were known. Over time, more populations have been discovered by additional field inventory. We estimate that, given the amount of appropriate habitat available, NHESP will soon know of 20 or more occurrences for this species.
D	Vascular Plant	<i>Utricularia striata</i> Fibrous Bladderwort	T	-	Based on a recent complete review of herbarium specimens, valid specimens of this taxon are now not known to have been collected in the state since 1896. Furthermore, intensive surveys of previously known sites has revealed no current sites for the species. Thus, it is now considered historical in Massachusetts and should be removed from the MESA list.
D	Vascular Plant	<i>Viola nephrophylla</i> Northern Bog Violet	E	-	Contrary to its current listing status, and based on a review of the herbaria known to harbor the most Massachusetts collections, this taxon is now not known to have been collected in Massachusetts since 1909. Based on the lengthy efforts described in the Species Listing Proposal Form, NHESP proposes to remove <i>V. nephrophylla</i> from the MESA list because we cannot confirm that it has been observed or collected in the state in the past 25 years.

		<u>Vertebrates</u>	<u>Invertebrates</u>	<u>Plants</u>	<u>Total</u>
Action:	A = Addition to MESA List	Addition	-	-	-
	C = Change in listing status	Status change	-	1	2
	D = Deletion from MESA list	Deletion	1	1	3
				5	7

Rank: E = Endangered